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RAW SEQUENCE LISTING

DATE: 10/30/2002

PATENT APPLICATION: US/10/032,221B

TIME: 15:08:29

Input Set.: A:\10_032221.ST25.txt

Output Set: N:\CRF4\10302002\J032221B.raw

3 <110> APPLICANT: Kalluri, Raghuram
 ,
 5 <120> TITLE OF INVENTION: ANTI-ANGIOGENIC PROTEINS AND FRAGMENTS AND METHODS OF USE
 THEREOF
 7 <130> FILE REFERENCE: 2312/2082B (formerly 1440.1027-016)
 9 <140> CURRENT APPLICATION NUMBER: US 10/032,221B
 10 <141> CURRENT FILING DATE: 2001-12-21
 12 <150> PRIOR APPLICATION NUMBER: PCT/US01/00565
 13 <151> PRIOR FILING DATE: 2001-01-08
 15 <150> PRIOR APPLICATION NUMBER: US 09/625,191
 16 <151> PRIOR FILING DATE: 2000-07-21
 18 <150> PRIOR APPLICATION NUMBER: US 09/543,371
 19 <151> PRIOR FILING DATE: 2000-04-04
 21 <150> PRIOR APPLICATION NUMBER: US 09/479,118
 22 <151> PRIOR FILING DATE: 2000-01-07
 24 <150> PRIOR APPLICATION NUMBER: US 09/335,224
 25 <151> PRIOR FILING DATE: 1999-06-17
 27 <150> PRIOR APPLICATION NUMBER: US 60/126,175
 28 <151> PRIOR FILING DATE: 1999-03-25
 30 <150> PRIOR APPLICATION NUMBER: US 60/089,689
 31 <151> PRIOR FILING DATE: 1998-06-17
 33 <160> NUMBER OF SEQ ID NOS: 58
 35 <170> SOFTWARE: PatentIn version 3.1
 37 <210> SEQ ID NO: 1
 38 <211> LENGTH: 690
 39 <212> TYPE: DNA
 40 <213> ORGANISM: Homo sapiens
 42 <220> FEATURE:
 43 <221> NAME/KEY: CDS
 44 <222> LOCATION: (1)..(687)
 45 <223> OTHER INFORMATION:

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49	Ser Val Asp His Gly Phe Leu Val Thr Arg His Ser Gln Thr Ile Asp	
50	1 5 10 15	
52	gac cca cag tgt cct tct ggg acc aaa att ctt tac cac ggg tac tct	96
53	Asp Pro Gln Cys Pro Ser Gly Thr Lys Ile Leu Tyr His Gly Tyr Ser	
54	20 25 30	
56	ttg ctc tac gtg caa ggc aat gaa cgg gcc cat gga cag gac ttg ggc	144
57	Leu Leu Tyr Val Gln Gly Asn Glu Arg Ala His Gly Gln Asp Leu Gly	
58	35 40 45	
60	acg gcc ggc agc tgc ctg cgc aag ttc agc aca atg ccc ttc ctg ttc	192
61	Thr Ala Gly Ser Cys Leu Arg Lys Phe Ser Thr Met Pro Phe Leu Phe	
62	50 55 60	
64	tgc aat att aac aac gtg tgc aac ttt gca tca cga aat gac tac tcg	240

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Input Set : A:\10_032221.ST25.txt
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65	Cys Asn Ile Asn Asn Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser			
66 65	70	75	80	
68	tac tgg ctg tcc acc cct gag ccc atg ccc atg tca atg gca ccc atc		288	
69	Tyr Trp Leu Ser Thr Pro Glu Pro Met Pro Met Ser Met Ala Pro Ile			
70	85	90	95	
72	acg ggg gaa aac ata aga cca ttt att agt agg tgt gct gtg tgt gag		336	
73	Thr Gly Glu Asn Ile Arg Pro Phe Ile Ser Arg Cys Ala Val Cys Glu			
74	100	105	110	
76	gcg cct gcc atg gtg atg gcc gtg cac agc cag acc att cag atc cca		384	
77	Ala Pro Ala Met Val Met Ala Val His Ser Gln Thr Ile Gln Ile Pro			
78	115	120	125	
80	ccg tgc ccc agc ggg tgg tcc tcg ctg tgg atc ggc tac tct ttt gtg		432	
81	Pro Cys Pro Ser Gly Trp Ser Ser Leu Trp Ile Gly Tyr Ser Phe Val			
82	130	135	140	
84	atg cac acc agc gct ggt gca gaa ggc tct ggc caa gcc ctg gcg tcc		480	
85	Met His Thr Ser Ala Gly Ala Glu Gly Ser Gly Gln Ala Leu Ala Ser			
86	145	150	155	160
88	ccc ggc tcc tgc ctg gag gag ttt aga agt gcg cca ttc atc gag tgt		528	
89	Pro Gly Ser Cys Leu Glu Glu Phe Arg Ser Ala Pro Phe Ile Glu Cys			
90	165	170	175	
92	cac ggc cgt ggg acc tgc aat tac tac gca aac gct tac agc ttt tgg		576	
93	His Gly Arg Gly Thr Cys Asn Tyr Tyr Ala Asn Ala Tyr Ser Phe Trp			
94	180	185	190	
96	ctc gcc acc ata gag agg agc gag atg ttc aag aag cct acg ccg tcc		624	
97	Leu Ala Thr Ile Glu Arg Ser Glu Met Phe Lys Lys Pro Thr Pro Ser			
98	195	200	205	
100	acc ttg aag gca ggg gag ctg cgc acg cac gtc acg cgc tgc caa gtc		672	
101	Thr Leu Lys Ala Gly Glu Leu Arg Thr His Val Ser Arg Cys Gln Val			
102	210	215	220	
104	tgt atg aga aga aca taa		690	
105	Cys Met Arg Arg Thr			
106	225			
109	<210> SEQ ID NO: 2			
110	<211> LENGTH: 229			
111	<212> TYPE: PRT			
112	<213> ORGANISM: Homo sapiens			
114	<400> SEQUENCE: 2			
116	Ser Val Asp His Gly Phe Leu Val Thr Arg His Ser Gln Thr Ile Asp			
117 1	5	10	15	
120	Asp Pro Gln Cys Pro Ser Gly Thr Lys Ile Leu Tyr His Gly Tyr Ser			
121	20	25	30	
124	Leu Leu Tyr Val Gln Gly Asn Glu Arg Ala His Gly Gln Asp Leu Gly			
125	35	40	45	
128	Thr Ala Gly Ser Cys Leu Arg Lys Phe Ser Thr Met Pro Phe Leu Phe			
129	50	55	60	
132	Cys Asn Ile Asn Asn Val Cys Asn Phe Ala Ser Arg Asn Asp Tyr Ser			
133 65	70	75	80	
136	Tyr Trp Leu Ser Thr Pro Glu Pro Met Pro Met Ser Met Ala Pro Ile			
137	85	90	95	

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/032,221B

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Input Set : A:\10_032221.ST25.txt
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140 Thr Gly Glu Asn Ile Arg Pro Phe Ile Ser Arg Cys Ala Val Cys Glu
141 100 105 110
144 Ala Pro Ala Met Val Met Ala Val His Ser Gln Thr Ile Gln Ile Pro
145 115 120 125
148 Pro Cys Pro Ser Gly Trp Ser Ser Leu Trp Ile Gly Tyr Ser Phe Val
149 130 135 140
152 Met His Thr Ser Ala Gly Ala Glu Gly Ser Gly Gln Ala Leu Ala Ser
153 145 150 155 160
156 Pro Gly Ser Cys Leu Glu Glu Phe Arg Ser Ala Pro Phe Ile Glu Cys
157 165 170 175
160 His Gly Arg Gly Thr Cys Asn Tyr Tyr Ala Asn Ala Tyr Ser Phe Trp
161 180 185 190
164 Leu Ala Thr Ile Glu Arg Ser Glu Met Phe Lys Lys Pro Thr Pro Ser
165 195 200 205
168 Thr Leu Lys Ala Gly Glu Leu Arg Thr His Val Ser Arg Cys Gln Val
169 210 215 220
172 Cys Met Arg Arg Thr
173 225
176 <210> SEQ ID NO: 3
177 <211> LENGTH: 27
178 <212> TYPE: DNA
179 <213> ORGANISM: Artificial sequence
181 <220> FEATURE:
182 <223> OTHER INFORMATION: pET22b(+) forward oligonucleotide primer for Arresten
184 <400> SEQUENCE: 3
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188 <210> SEQ ID NO: 4
189 <211> LENGTH: 27
190 <212> TYPE: DNA
191 <213> ORGANISM: Artificial sequence
193 <220> FEATURE:
194 <223> OTHER INFORMATION: pET22b(+) reverse oligonucleotide primer for Arresten
196 <400> SEQUENCE: 4
197 cccaagcttt gttctctca tacagac 27
200 <210> SEQ ID NO: 5
201 <211> LENGTH: 684
202 <212> TYPE: DNA
203 <213> ORGANISM: Homo sapiens
205 <220> FEATURE:
206 <221> NAME/KEY: CDS
207 <222> LOCATION: (1)..(681)
208 <223> OTHER INFORMATION:
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212 Val Ser Ile Gly Tyr Leu Leu Val Lys His Ser Gln Thr Asp Gln Glu
213 1 5 10 15
215 ccc atg tgc ccg gtg ggc atg aac aaa ctc tgg agt gga tac agc ctg 96
216 Pro Met Cys Pro Val Gly Met Asn Lys Leu Trp Ser Gly Tyr Ser Leu
217 20 25 30

RAW SEQUENCE LISTING

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Input Set : A:\10_032221.ST25.txt

Output Set: N:\CRF4\10302002\J032221B.raw

219	ctg	tac	ttc	gag	ggc	cag	gag	aag	gcg	cac	aac	cag	gac	ctg	ggg	ctg		144	
220	Leu	Tyr	Phe	Glu	Gly	Gln	Glu	Lys	Ala	His	Asn	Gln	Asp	Leu	Gly	Leu			
221								35		40						45			
223	gcg	ggc	tcc	tgc	ctg	gcg	cgg	ttc	agc	acc	atg	ccc	ttc	ctg	tac	tgc		192	
224	Ala	Gly	Ser	Cys	Leu	Ala	Arg	Phe	Ser	Thr	Met	Pro	Phe	Leu	Tyr	Cys			
225								50		55						60			
227	aac	cct	ggt	gat	gtc	tgc	tac	tat	gcc	agc	cgg	aac	gac	aag	tcc	tac		240	
228	Asn	Pro	Gly	Asp	Val	Cys	Tyr	Tyr	Ala	Ser	Arg	Asn	Asp	Lys	Ser	Tyr			
229		65					70			75						80			
231	tgg	ctc	tct	acc	act	gcg	ccg	ctg	ccc	atg	atg	ccc	gtg	gcc	gag	gac		288	
232	Trp	Leu	Ser	Thr	Ala	Pro	Leu	Pro	Met	Met	Pro	Val	Ala	Glu	Asp				
233							85			90						95			
235	gag	atc	aag	ccc	tac	atc	agc	cgc	tgt	tct	gtg	tgt	gag	gcc	ccg	gcc		336	
236	Glu	Ile	Lys	Pro	Tyr	Ile	Ser	Arg	Cys	Ser	Val	Cys	Glu	Ala	Pro	Ala			
237							100			105						110			
239	atc	gcc	atc	gct	cac	agt	cag	gat	gtc	tcc	atc	cca	cac	tgc	cca		384		
240	Ile	Ala	Ile	Ala	Val	His	Ser	Gln	Asp	Val	Ser	Ile	Pro	His	Cys	Pro			
241							115			120						125			
243	gct	ggg	tgg	cgg	agt	ttg	tgg	atc	gga	tat	tcc	ttc	ctc	atg	cac	acg		432	
244	Ala	Gly	Trp	Arg	Ser	Leu	Trp	Ile	Gly	Tyr	Ser	Phe	Leu	Met	His	Thr			
245							130			135						140			
247	gcg	gct	gga	gac	gaa	ggc	ggt	ggc	caa	tca	ctg	gtg	tca	ccg	ggc	agc		480	
248	Ala	Ala	Gly	Asp	Glu	Gly	Gly	Gly	Gln	Ser	Leu	Val	Ser	Pro	Gly	Ser			
249		145					150				155					160			
251	tgt	cta	gag	gac	ttc	cgc	gcc	aca	cca	tcc	atc	gaa	tgc	aat	gga	ggc		528	
252	Cys	Leu	Glu	Asp	Phe	Arg	Ala	Thr	Pro	Phe	Ile	Glu	Cys	Asn	Gly	Gly			
253							165			170						175			
255	cgc	ggc	acc	tgc	cac	tac	tac	gcc	aac	aag	tac	agc	ttc	tgg	ctg	acc		576	
256	Arg	Gly	Thr	Cys	His	Tyr	Tyr	Ala	Asn	Lys	Tyr	Ser	Phe	Trp	Leu	Thr			
257							180			185						190			
259	acc	att	ccc	gag	cag	agc	ttc	cag	ggc	tcg	ccc	tcc	gcc	gac	acg	ctc		624	
260	Thr	Ile	Pro	Glu	Gln	Ser	Phe	Gln	Gly	Ser	Pro	Ser	Ala	Asp	Thr	Leu			
261							195			200						205			
263	aag	gcc	gct	ctc	atc	cgc	aca	cac	atc	agc	cgc	tgc	cag	gtg	tgc	atg		672	
264	Lys	Ala	Gly	Leu	Ile	Arg	Thr	His	Ile	Ser	Arg	Cys	Gln	Val	Cys	Met			
265							210			215						220			
267	aag	aac	ctg	tga													684		
268	Lys	Asn	Leu																
269	225																		
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274	<212>	TYPE:	PRT																
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279	Val	Ser	Ile	Gly	Tyr	Leu	Leu	Val	Lys	His	Ser	Gln	Thr	Asp	Gln	Glu			
280	1					5				10						15			
283	Pro	Met	Cys	Pro	Val	Gly	Met	Asn	Lys	Leu	Trp	Ser	Gly	Tyr	Ser	Leu			
284							20			25						30			
287	Leu	Tyr	Phe	Glu	Gly	Gln	Glu	Lys	Ala	His	Asn	Gln	Asp	Leu	Gly	Leu			

RAW SEQUENCE LISTING
PATENT APPLICATION: US/10/032,221B

DATE: 10/30/2002
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Input Set : A:\10_032221.ST25.txt
Output Set: N:\CRF4\10302002\J032221B.raw

288	35	40	45													
291	Ala	Gly	Ser	Cys	Leu	Ala	Arg	Phe	Ser	Thr	Met	Pro	Phe	Leu	Tyr	Cys
292	50				55						60					
295	Asn	Pro	Gly	Asp	Val	Cys	Tyr	Tyr	Ala	Ser	Arg	Asn	Asp	Lys	Ser	Tyr
296	65				70					75						80
299	Trp	Leu	Ser	Thr	Thr	Ala	Pro	Leu	Pro	Met	Met	Pro	Val	Ala	Glu	Asp
300					85				90							95
303	Glu	Ile	Lys	Pro	Tyr	Ile	Ser	Arg	Cys	Ser	Val	Cys	Glu	Ala	Pro	Ala
304		100				105										110
307	Ile	Ala	Ile	Ala	Val	His	Ser	Gln	Asp	Val	Ser	Ile	Pro	His	Cys	Pro
308		115				120										125
311	Ala	Gly	Trp	Arg	Ser	Leu	Trp	Ile	Gly	Tyr	Ser	Phe	Leu	Met	His	Thr
312		130				135				140						
315	Ala	Ala	Gly	Asp	Glu	Gly	Gly	Gly	Gln	Ser	Leu	Val	Ser	Pro	Gly	Ser
316	145				150				155							160
319	Cys	Leu	Glu	Asp	Phe	Arg	Ala	Thr	Pro	Phe	Ile	Glu	Cys	Asn	Gly	Gly
320					165				170							175
323	Arg	Gly	Thr	Cys	His	Tyr	Tyr	Ala	Asn	Lys	Tyr	Ser	Phe	Trp	Leu	Thr
324					180				185							190
327	Thr	Ile	Pro	Glu	Gln	Ser	Phe	Gln	Gly	Ser	Pro	Ser	Ala	Asp	Thr	Leu
328					195			200								205
331	Lys	Ala	Gly	Leu	Ile	Arg	Thr	His	Ile	Ser	Arg	Cys	Gln	Val	Cys	Met
332		210				215				220						
335	Lys	Asn	Leu													
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340	<211>	LENGTH:	27													
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345	<223>	OTHER INFORMATION:	pET22b(+) forward oligonucleotide primer for Canstatin													
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348	cgggatcctg	tcagcatcg	ctacctc													27
351	<210>	SEQ ID NO:	8													
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364	<211>	LENGTH:	735													
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368	<220>	FEATURE:														
369	<221>	NAME/KEY:	CDS													
370	<222>	LOCATION:	(1)..(732)													
371	<223>	OTHER INFORMATION:														

RAW SEQUENCE LISTING ERROR SUMMARY DATE: 10/30/2002
PATENT APPLICATION: US/10/032,221B TIME: 15:08:30

Input Set : A:\10_032221.ST25.txt
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:45; Xaa Pos. 1,2,5,9,11,14

VERIFICATION SUMMARY

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L:210 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:5,Line#:208
L:373 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:9,Line#:371
L:1146 M:259 W: Allowed number of lines exceeded, <223> Other Information:
L:1323 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:45 after pos.:0